



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

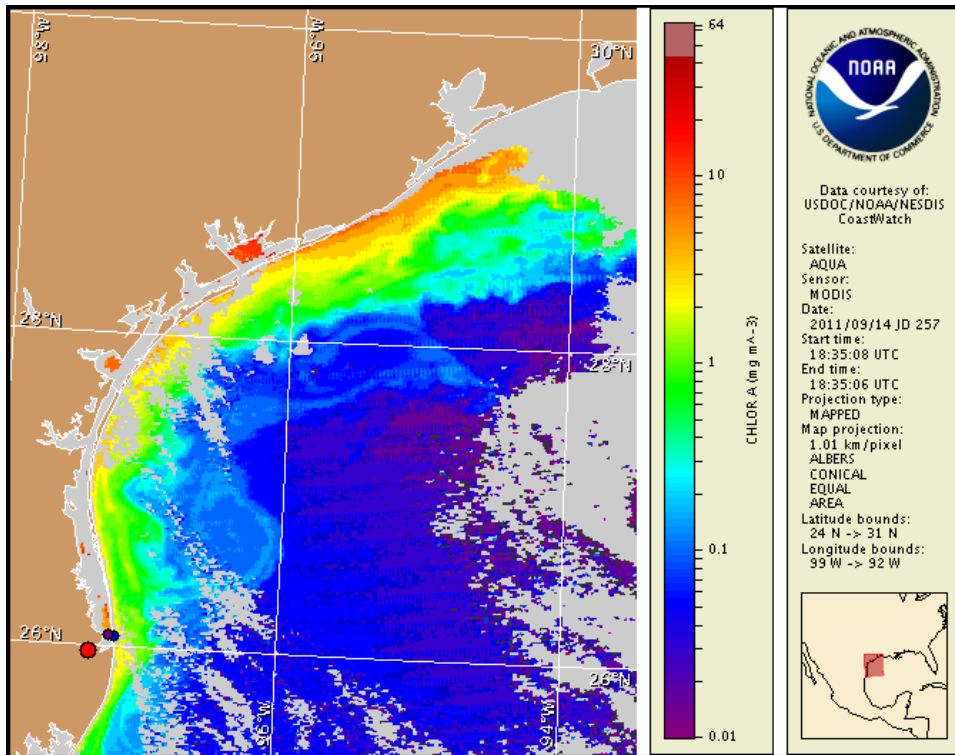
Thursday, 15 September 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 12, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from September 5 to 15 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A harmful algal bloom has been identified in the Brownsville Ship Channel area, and harmful algae has been identified along the southern end of South Padre Island. Patchy high impacts are possible today through Sunday in the Brownsville Ship Channel area. No additional impacts are expected at the coast in Texas today through Sunday, September 18. Reports of dead fish, discolored water, and respiratory irritation have been received in the Brownsville Ship Channel and in San Martin Lake.

Analysis

A harmful algal bloom has been identified in the Brownsville Ship Channel area in southern Texas. 'High' concentrations of *Karenia brevis* were identified in a sample collected inside the channel on Wednesday, September 14 (TPWD). 'Very low b' *K. brevis* concentrations were identified in samples collected along the coast approximately 3 miles north of the southern end of South Padre Island and at the Isla Blanca boat ramp; one sample containing 'very low a' concentrations was identified inside Brazos Santiago pass near Port Isabel (9/15; TPWD). 'Very low a' concentrations of *Karenia brevis* were also identified in one sample collected last week inside Brazos Santiago Pass following reports of stressed fish in the area (9/10; TPWD). *K. brevis* has not been reported elsewhere along the coast of Texas.

Dead fish, discolored water, and respiratory irritation have been reported in the Brownsville Ship Channel area and San Martin Lake region. Reports indicate that the fish kill area begins approximately six miles west of Brazos Santiago Pass and extends for approximately seven miles west through the channel (9/15; TPWD).

Recent MODIS imagery (9/14, shown left) is partially obscured by clouds in the Brazos Santiago Pass area; however elevated chlorophyll (1-2 $\mu\text{g/L}$) is visible in the surrounding area. Elevated chlorophyll (1-5 $\mu\text{g/L}$) is visible stretching along- and offshore much of the Texas coastline from Bolivar Roads Pass to Brazos Santiago Pass.

Onshore winds through Sunday will increase the potential for impacts in the Brownsville Ship Channel area.

Forecast models indicate a maximum transport of 60km north along the coast from Brazos Santiago Pass from September 14 to September 18, and a maximum transport of 40km north along the coast from Port Aransas from September 14 to September 18.

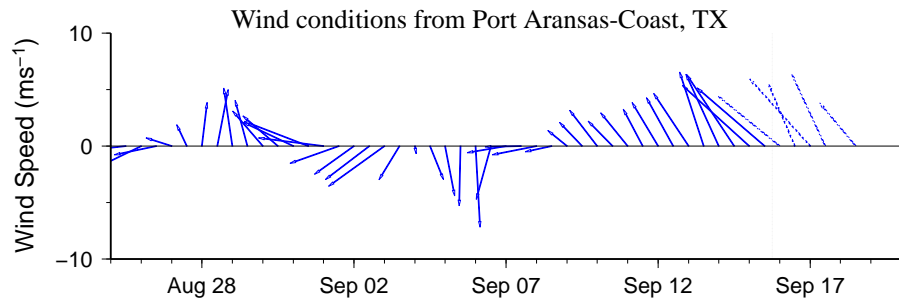
****As of today, September 15th, Texas bulletins will be issued twice weekly on Mondays & Thursdays due to current harmful algal bloom activity.****

Derner, Kavanaugh, Urizar

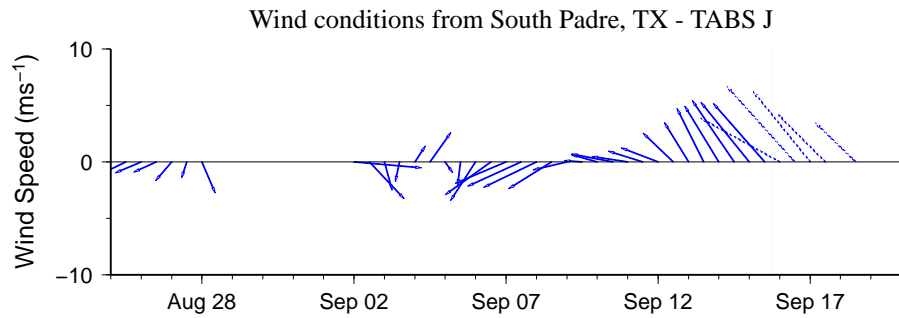
Wind Analysis

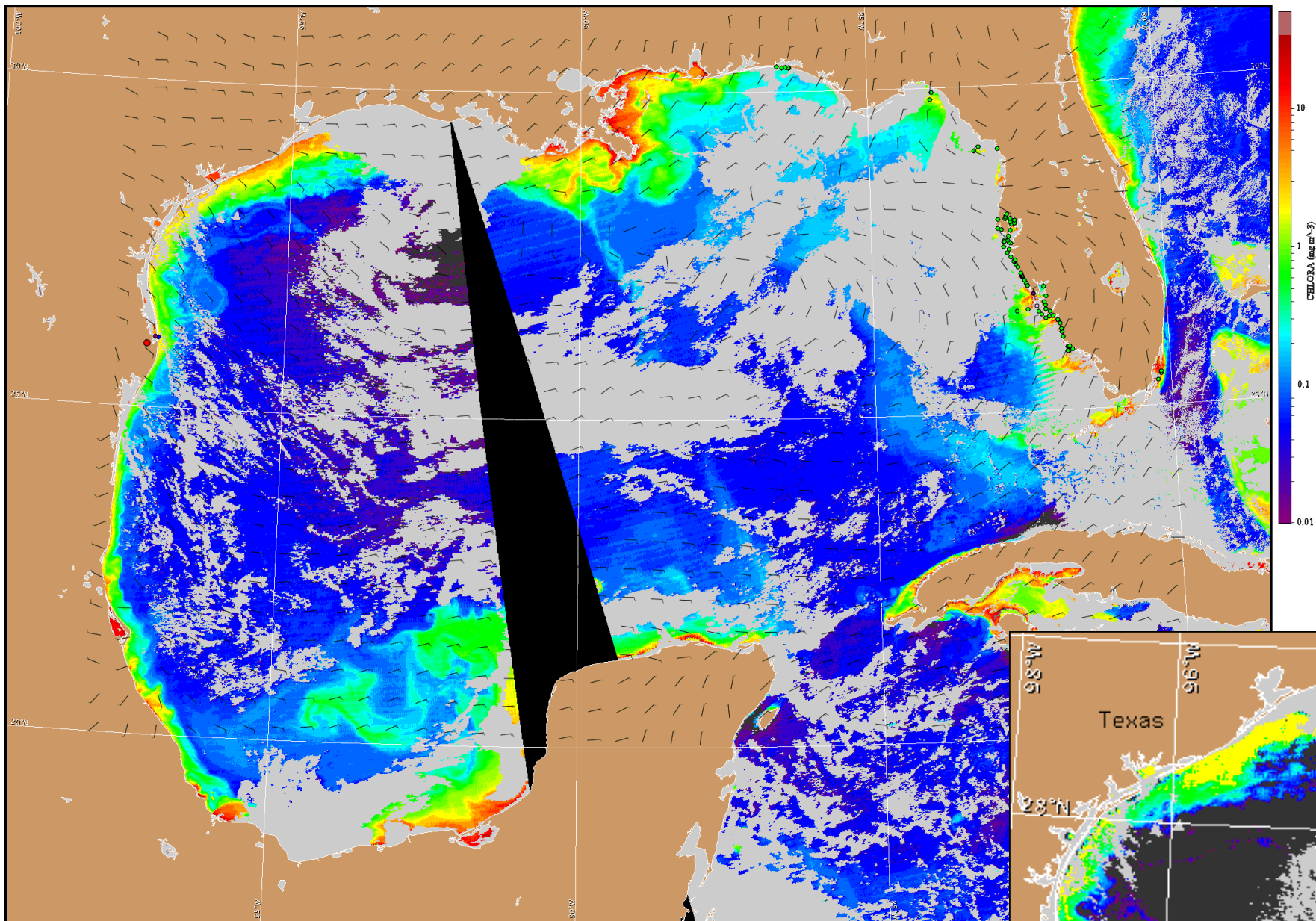
Port Aransas: Southeast winds (10-20kn, 5-10m/s) today through Monday.

South Padre: Southeast winds (15-20kn, 8-10m/s) today. Southeast winds Friday (15kn, 8m/s). Southeast winds (10kn, 5 m/s) Saturday. East winds (10kn) Sunday and Monday.



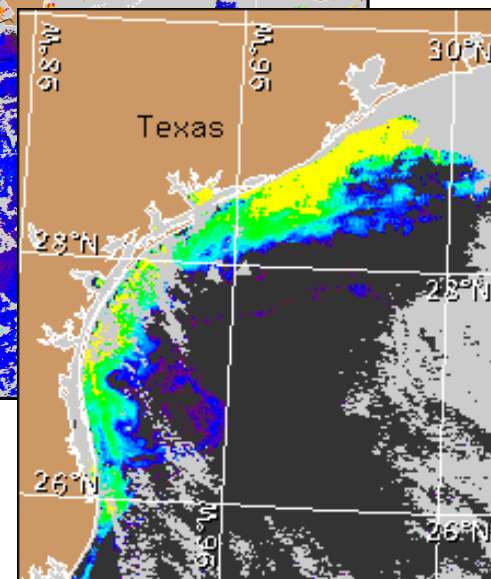
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for September 16, 2011 12Z with cell concentration sampling data from September 5 to 15 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).